

WHAT IS CLAIMED IS:

1. An image processing apparatus for outputting image information to image forming means which forms an image on a medium, comprising:

5       superposing means for superposing predetermined additional information on input image information; and processing means for performing modulation of the image information superposed with the additional information by said superposing means,

10       wherein when said image forming means forms an image in accordance with the image information obtained by performing demodulation of the image information modulated by said processing means, said superposing means superposes the additional information so as to  
15       make it difficult for the human eye to identify said additional information.

2. The apparatus according to claim 1, wherein the additional information comprises a predetermined pattern having a mark representing a position where the  
20       additional information is added to the image information.

3. The apparatus according to claim 2, wherein the pattern is formed by dots distributed within a predetermined range, so that an arrangement of the dots  
25       represents predetermined information.

4. The apparatus according to claim 1, wherein the modulation is performed in accordance with a predetermined function, and the demodulation is performed by an inverse function of the predetermined function.

5. The apparatus according to claim 1, further comprising means for determining the presence/absence of said superposing means and means for setting the image information superposed with the additional information to a fixed value on the basis of the determination result.

6. The apparatus according to claim 1, further comprising means for performing gradation conversion of the image information superposed with the additional information.

7. The apparatus according to claim 1, wherein the additional information is at least one of apparatus identification information and apparatus operator identification information.

8. An image processing apparatus having image forming means for forming an image on a medium, comprising:

input means for inputting image information on which modulation has been performed;

processing means for performing demodulation of the modulated image information input from said input means; and

superposing means for superposing predetermined additional information on the image information demodulated by said processing means,

wherein when said image forming means forms an image in accordance with the image information superposed with the additional information by said superposing means, said superposing means superposes the additional information so as to make it difficult for the human eye to identify said additional information.

9. The apparatus according to claim 8, wherein the additional information comprises a predetermined pattern having a mark representing a position where the additional information is added to the image information.

10. The apparatus according to claim 9, wherein the pattern is formed by dots distributed within a predetermined range, so that an arrangement of the dots represents predetermined information.

11. The apparatus according to claim 8, wherein the modulation is performed in accordance with a predetermined function, and the demodulation is performed by an inverse function of the predetermined function.

12. The apparatus according to claim 8, wherein the additional information is at least one of apparatus

identification information and apparatus operator  
identification information.

13. An image processing apparatus having image forming  
means for forming an image on a medium, comprising:

5        processing means for performing a predetermined  
process of input image information; and

         means for superposing predetermined additional  
information to the image information processing by said  
processing means,

10        wherein when said image forming means forms an  
image in accordance with the image information  
superposed with the additional information by said  
superposing means, said superposing means superposes the  
additional information so as to make it difficult for  
15 the human eye to identify said additional information.

14. The apparatus according to claim 13, wherein the  
additional information comprises a predetermined pattern  
having a mark representing a position where the  
additional information is added to the image  
20 information.

15. The apparatus according to claim 13, wherein the  
additional information is at least one of apparatus  
identification information and apparatus operator  
identification information.

25 16. The apparatus according to claim 14, wherein the  
dot is obtained by modulating image information

constituted by one pixel or a plurality of adjacent pixels.

17. The apparatus according to claim 13, wherein the additional information is represented by a relative  
5 positional relationship between a dot position of a line formed by equidistantly arranging dots in a first direction and a dot position of an adjacent line equidistantly arranging in a second direction perpendicular to the first direction.

10 18. The apparatus according to claim 17, wherein the additional information is represented by a plurality of ones of the line which are repeated in the second direction.

19. The apparatus according to claim 18, wherein when  
15 the plurality of lines correspond to predetermined identification information, another dot different from an original dot is added to a specific line of the plurality of lines, thereby forming a division in the predetermined identification information.

20 20. The apparatus according to claim 19, wherein the specific line comprises two specific lines of the plurality of lines corresponding to the predetermined identification information, thereby determining the division in the identification information and an  
25 arrangement direction of the identification information.

21. The apparatus according to claim 13, wherein the additional information is superposed for a color most unnoticeable to a human eye in element colors representing an image.
- 5 22. The apparatus according to claim 13, wherein the predetermined process is at least one of magnification, color conversion, MTF correction, and modulation.
23. An image processing apparatus comprising:  
means for inputting an image signal from an  
10 external equipment;  
means for reading an original image;  
means for synthesizing a first image signal input from said external equipment with a second image signal read by said reading means to generate a third image  
15 signal; and  
means for superposing predetermined additional information on the third image information,  
wherein the third image signal is formed prior to superposition by said superposing means.
- 20 24. The apparatus according to claim 23, wherein said external equipment is a host computer.
25. The apparatus according to claim 23, wherein the additional information comprises a predetermined pattern having a mark representing a position where the  
25 additional information is added to the image information.

26. The apparatus according to claim 25, wherein the pattern is formed by dots distributed within a predetermined range, so that an arrangement of the dots represents predetermined information.

5 27. The apparatus according to claim 23, wherein the additional information is at least one of apparatus identification information and apparatus operator identification information.

10 28. The apparatus according to claim 23, wherein the additional information is superposed for a color most unnoticeable to a human eye in element colors representing an image.

29. An image processing apparatus, comprising:  
determining means for determining whether input  
15 image information contains a predetermined pattern; and  
means for eliminating the predetermined pattern from the image information when said determining means determines that the image information contains the predetermined pattern.

20 30. The apparatus according to claim 29, wherein said determining means detects a dot shape having a predetermined color component to determine the presence/absence of the predetermined pattern.

25 31. The apparatus according to claim 30, wherein the color component is a color most unnoticeable to a human

eye in element colors representing the image information.

32. The apparatus according to claim 29, further comprising means for superposing predetermined  
5 additional information to the image information from which the predetermined pattern is removed.

33. The apparatus according to claim 29, further comprising means for comparing the image information with a specific image and means for designating that the  
10 image information is output at said recording unit as an image which cannot be determined when the image information is the specific image.